

### Topic 13: Solve linear and absolute value inequalities

Solve and write the answer in interval notation.

1.  $|2x-1| \leq 5$

2.  $|3x-1| \geq 5$

3.  $|3x+2| > 8$

4.  $\frac{1}{2} < 3x+4 < 6$

5.  $-6 < \frac{4-3x}{2} < \frac{2}{3}$

Answers

1.  $[-2, 3]$

2.  $\left(-\infty, -\frac{4}{3}\right] \cup [2, \infty)$

3.  $\left(-\infty, -\frac{10}{3}\right) \cup (2, \infty)$

4.  $\left(-\frac{7}{6}, \frac{2}{3}\right)$

5.  $\left(\frac{8}{9}, \frac{16}{3}\right)$